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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,237	08/20/2003	Satoko Iwato	CH2894USNA	6051

23906 7590 01/11/2006

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WILMINGTON, DE 19805

EXAMINER

KUMAR, PREETI

ART UNIT PAPER NUMBER

1751

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,237

Applicant(s)

IWATO ET AL.

Examiner

Preeti Kumar

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/8/04, 8/20/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Non-Final Rejection

1. Applicant's election without traverse of Group I, claims 1-17 in the reply filed on 10/20/2005 is acknowledged.
2. Claims 1-17 are pending. Claims 18-28 are cancelled in the reply dated 10/20/2005.
3. Claims 1 and 13 are independent.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Both claims 1 and 13 recite the language "...comprises or is produced from...". This language makes the claim indefinite as it is unclear if a composition is claimed or a product by process is being claimed. Applicants seem to be claiming a composition and a product by process within one claim which is confusing and indefinite. Examiner is unclear if the thin film comprises a fluorocarbon silane or emulsion OR is the thin film produced from a fluorocarbon silane or emulsion? It is unclear how the thin film can be produced from a fluorocarbon and also be produced from an emulsion produced from a fluorocarbon? Also it is unclear what combinations of two or more thereof is being referred to in the definition of Rf.

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Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1, 2, 5-8, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Halling (US 5,442,011).

Halling teaches polymeric fluorocarbon siloxanes represented by the formula claimed in instant claim 1 (see col.4,ln.30-65) wherein the perfluoroalkyl alkoxysilane is

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in a stable aqueous emulsion and is used to produce a durable coating for providing water repellency. See abstract, ex. 1-4.

Regarding the fibers of claims 5-8, 12-15, Halling teaches treating various substrates having siliceous, cellulosic or proteinaceous surfaces and to polymer substrates, such as polyesters and polyamides for water repellency. See col.7,ln.20-50.

Accordingly the teachings of Halling anticipate the material limitations of the instant claims.

10. Claims 3-4, 9-12, and 16-17 are rejected under 35 U.S.C. 103(a) as being obvious over Halling (US 5,442,011).

Halling is relied upon as set forth above. However, Halling does not teach a film having a thickness of less than 1000nm as recited by claim 3-4 and does not teach coating the claimed p-phenylene terephthalamide, firefighting apparel and a glove as recited by claims 9-12 and 16-17.

It would have been obvious to one of ordinary skill in the art to arrive at a film having a thickness of less than 1000nm as recited by the instant claims 3-4, with a reasonable expectation of success and similar results because Halling teaches a coating composition produced from the same fluorocarbon silane emulsion which would be expected to have similar physical properties.

Also, it would have been obvious to one of ordinary skill in the art to arrive at a composition to coat p-phenylene terephthalamide, firefighting apparel and a glove as recited by the instant claims 9-12 and 16-17, because Halling teaches coating polyester and polyamide fibers in general.

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11. Claims 1-8, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Halling (US 5,550,184).

Halling teaches polymeric fluorocarbon siloxanes represented by the formula claimed in instant claim 1 (see col.3,ln.45-55) wherein the perfluoroalkyl alkoxysilane is in a stable aqueous emulsion and is used to produce a durable coating for providing water repellency. See abstract, ex. 1-4 and claims 1-5.

Regarding the thickness of claims 3-4, Halling teaches that the emulsion has a particle size of 10nm to 100nm. See col.6,ln.1-7.

Regarding the fibers of claims 5-8, 12-15, Halling teaches treating various substrates having siliceous, cellulosic or proteinaceous surfaces and to polymer substrates, such as polyesters and polyamides for water repellency. See col.6,ln.35-45.

Accordingly the teachings of Halling anticipate the material limitations of the instant claims.

12. Claims 9-12, and 16-17 are rejected under 35 U.S.C. 103(a) as being obvious over Halling (US 5,442,011).

Halling is relied upon as set forth above. However, Halling does not teach coating the claimed p-phenylene terephthalamide, firefighting apparel and a glove as recited by claims 9-12 and 16-17.

It would have been obvious to one of ordinary skill in the art to arrive at a composition to coat p-phenylene terephthalamide, firefighting apparel and a glove as recited by the instant claims 9-12 and 16-17, because Halling teaches coating polyester and polyamide fibers in general.

13. Claims 1, 2, 5-8, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Halling (WO 95/23804).

Halling teaches polymeric fluorocarbon siloxanes represented by the formula claimed in instant claim 1 (see page 4) wherein the perfluoroalkyl alkoxysilane is in a stable aqueous emulsion and is used to produce a durable coating for providing water repellency. See abstract, ex. 1, 6, and 10.

Regarding the fibers of claims 5-8, 12-15, Halling teaches treating various substrates having siliceous, cellulosic or proteinaceous surfaces and to polymer substrates, such as polyesters and polyamides for water repellency. See page 8-9. Accordingly the teachings of Halling anticipate the material limitations of the instant claims.

14. Claims 3-4, 9-12, and 16-17 are rejected under 35 U.S.C. 103(a) as being obvious over Halling (WO 95/23804).

Halling is relied upon as set forth above. However, Halling does not teach a film having a thickness of less than 1000nm as recited by claim 3-4 and does not teach coating the claimed p-phenylene terephthalamide, firefighting apparel and a glove as recited by claims 9-12 and 16-17.

It would have been obvious to one of ordinary skill in the art to arrive at a film having a thickness of less than 1000nm as recited by the instant claims 3-4, with a reasonable expectation of success and similar results because Halling teaches a coating composition produced from the same fluorocarbon silane emulsion which would be expected to have similar physical properties.

It would have been obvious to one of ordinary skill in the art to arrive at a composition to coat p-phenylene terephthalamide, firefighting apparel and a glove as recited by the instant claims 9-12 and 16-17, because Halling teaches coating polyester and polyamide fibers in general.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Remaining references cited but not relied upon are considered to be cumulative to or less pertinent than those relied upon or discussed above.

Applicant is reminded that any evidence to be presented in accordance with 37 CFR 1.131 or 1.132 should be submitted before final rejection in order to be considered timely.

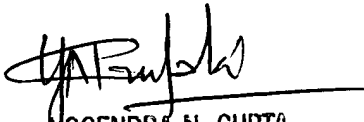
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 571-272-1320. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PK



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